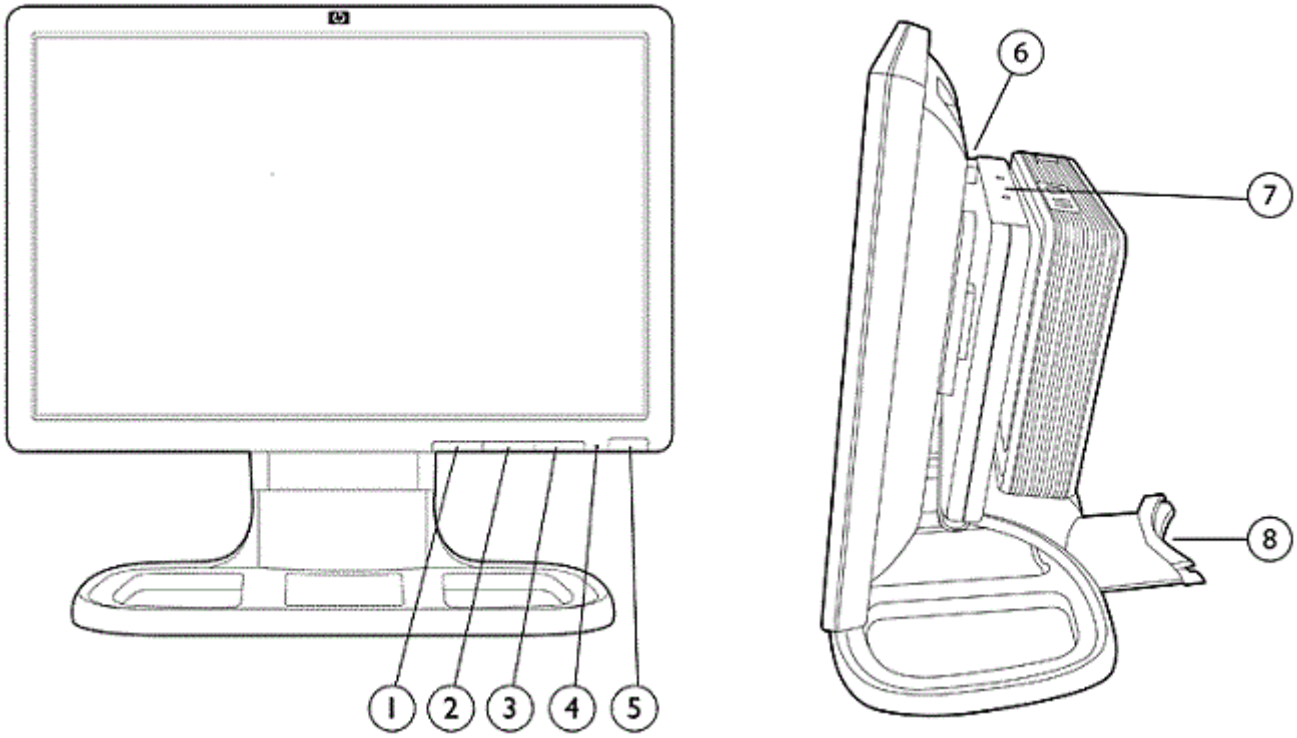
Overview



1. Menu/select: Opens, selects or exits the OSD menu.
2. "-"/Auto: Navigates backward through the OSD menu and decreases adjustment levels; when the OSD menu is inactive, activates the auto adjustment feature to optimize the screen image.
3. "+": Navigates forward through the OSD menu and increases adjustment levels.
4. Power LED: fully powered = green; sleep mode = amber; sleep timer mode = flashing amber.
5. Power: Turns the monitor on or off.
6. Integrated HP Quick Release
7. Mounting bracket security screw installation points
8. Power supply support and rear cable management loops

Model

NP447A

Technical Specifications

Panel	Type	19-in (48.14-cm) Wide-Aspect Active Matrix TFT (thin film transistor)
	Viewable Image Area (diagonal)	19 in (48.14 cm) wide (WXGA+); diagonally measured
	Screen Opening (W x H)	16.1 x 10.0 in (40.82 x 25.52 cm)
	Panel Type	TN
	Aspect Ratio	16:10
	Viewing Angle (typical)	Up to 160° horizontal/160° vertical (10:1 minimum contrast ratio)
	Brightness (typical)*	250 nits (cd/m^2)
	Contrast Ratio (typical)*	1000:1
	Response Time (typical)*	=5 ms (on/off)
	Pixel Pitch	.2835 mm
	Backlight Lamp Life (to half brightness)	50 K hours
	Color Gamut	72%
	*All performance specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.	
On Screen Display (OSD) Controls	Buttons or Switches	Auto adjust/OSD down, OSD UP, OSD menu select, power
	Languages	English, French, German, Spanish, Italian, Dutch, and Japanese, S. Chinese, Portuguese
	User Controls	Brightness, contrast, positioning, color temperature (6500k, 9300k, custom), individual color control, serial number, display, clock, clock phase, monitor management, factory reset, zoom
Signal Interface/ Performance	Horizontal Frequency	24 to 83 kHz
	Vertical Frequency	50 to 76 Hz
	Native Resolution	1440 x 900 @ 60 Hz
	Preset VESA Graphic Modes (non-interlaced)	1280 x 1024 @ 60 Hz 1280 x 960 @ 60 Hz 1024 x 768 @ 60 Hz 800 x 600 @ 60 Hz 640 x 480 @ 60 Hz
	CVT Mode	1152 x 720 @ 60 Hz 1280 x 768 @ 60 Hz
	Text Mode	720 x 400 @ 70 Hz
	Maximum Pixel Clock Speed	140 MHz (analog input)
	User Programmable Modes	Yes, 15
	Anti-Glare	Yes
	Anti-Static	No
	Default Color Temperature	6500 K
Video/Other Inputs	Plug and Play	Yes

Technical Specifications

	Self Powered USB 2.0 Hub	No		
	Input Signal	VGA		
	Input Impedance	75 ohms ± 10%		
	Sync Input	TTL separate synch or Composite Sync		
	VGA Cable	15 pin D-sub VGA		
	VGA Cable Length	2.29 ft (0.7 m)		
Power	Input Power	Auto-Sensing, 90 to 265 VAC		
	Frequency	45 to 63 Hz		
	Typical Power Consumption	20 watts		
	Maximum	23 watts		
	Power Saving	2 watts standby;1 watt off		
	Power Cable Length	6.2 ft (1.9 m)		
Mechanical	Dimensions (H x W x D)	Unpacked w/stand	18.9 x 17.6 x 10.3 in (47.9 x 44.6 x 26.1 cm)	
		Unpacked w/o stand (head only)	11.9 x 17.6 x 2.3 in (30.1 x 44.6 x 5.9 cm)	
		Packaged	22.20 x 16.60 x 13.6 in (56.2 x 42.1 x 34.4 cm)	
	Weight	Unpacked	15.2 lb (6.9 kg)	
		Head only	8.8 lb (4.0 kg)	
		Packaged	20.9 lb (9.5 kg)	
	Tilt Range	-3 to +20 degrees vertical tilt		
	Swivel Range	-180° to + 180°		
	Height Adjustable	Yes, range: 5.3 in (13.5 cm)		
	Pivot Rotation	No		
	Base	Detachable, ships detached		
Environmental	Temperature - Operating	-29° to 140° F (-34° to 60° C)		
	Temperature - Non-operating	-4° to 140° F (-20° to 60° C)		
	Humidity - Operating	20% to 80% non-condensing		
	Humidity - Non-operating	5% to 95%, 38.7° C max wet-bulb		
	Altitude - Operating	+0 to 16,404 ft (5000 m)		
	Altitude - Non-operating	+40,000 ft (12,192 m)		
Environmental Data	Eco-Label Certifications and Declarations	This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks: • ENERGY STAR® • IT ECO declaration • EPEAT™ Silver		
	Energy Consumption (in accordance with ENERGY STAR® test method)	AC Input Voltage at 100 VAC +/- 5 VAC, 50 Hz +/- 3 Hz	AC Input Voltage at 115 VAC +/- 5 VAC, 60 Hz +/- 3 Hz	AC Input Voltage at 230 VAC +/- 5 VAC, 50 Hz +/- 3 Hz
	Normal Operation	18.42W	18.36W	18.80W

Sleep	0.52W	0.55W	0.51W
Off	0.45W	0.43W	0.47W

Heat Dissipation*	AC Input Voltage at 100 VAC +/- 5 VAC, 50 Hz +/- 3 Hz	AC Input Voltage at 115 VAC +/- 5 VAC, 60 Hz +/- 3 Hz	AC Input Voltage at 230 VAC +/- 5 VAC, 50 Hz +/- 3 Hz
Normal Operation	63 BTU/hr	63 BTU/hr	64 BTU/hr
Sleep	2 BTU/hr	2 BTU/hr	2 BTU/hr
Off	1 BTU/hr	1 BTU/hr	1 BTU/hr

* Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Additional Information

This product is in compliance with the Restrictions of Hazardous Substances (RoHS) Directive, 2002/95/EC.

This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive, 2002/96/EC.

This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).

This product is in compliance with the IEEE 1680 (EPEAT) standard at the Silver level, see: www.epeat.net.

Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.

Display meets the requirement for low frequency electromagnetic fields per TCO and prEN50279 A/B/C.

This product contains 0% post-consumer recycled plastic (by wt.)

This product is 93.8% recycle-able when properly disposed of at end of life.

Packaging Materials

- External:
  - Polypropylene 28 g
- Internal:
  - PET 74g

RoHS Compliance

Hewlett-Packard is committed to compliance with all applicable environmental laws and regulations, including the European Union Restriction of Hazardous Substances (RoHS) Directive. HP's goal is to exceed compliance obligations by meeting the requirements of the RoHS Directive on a worldwide basis. By July 1, 2006, RoHS substances will be virtually eliminated (virtually = to levels below legal limits) for all HP electronic products subject to the RoHS Directive, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).

Material Usage

This product does not contain any of the following substances in excess of

regulatory limits (refer to the HP General Specification for the Environment at: www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants - may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel - finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) - except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.
- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

Packaging

HP follows these guidelines to decrease the environmental impact of product packaging:

- Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.
- Eliminate the use of ozone-depleting substances (ODS) in packaging materials.
- Design packaging materials for ease of disassembly.
- Maximize the use of post-consumer recycled content materials in packaging materials.
- Use readily recyclable packaging materials such as paper and corrugated materials.
- Reduce size and weight of packages to improve transportation fuel efficiency.
- Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.

End-of-life Management and Recycling

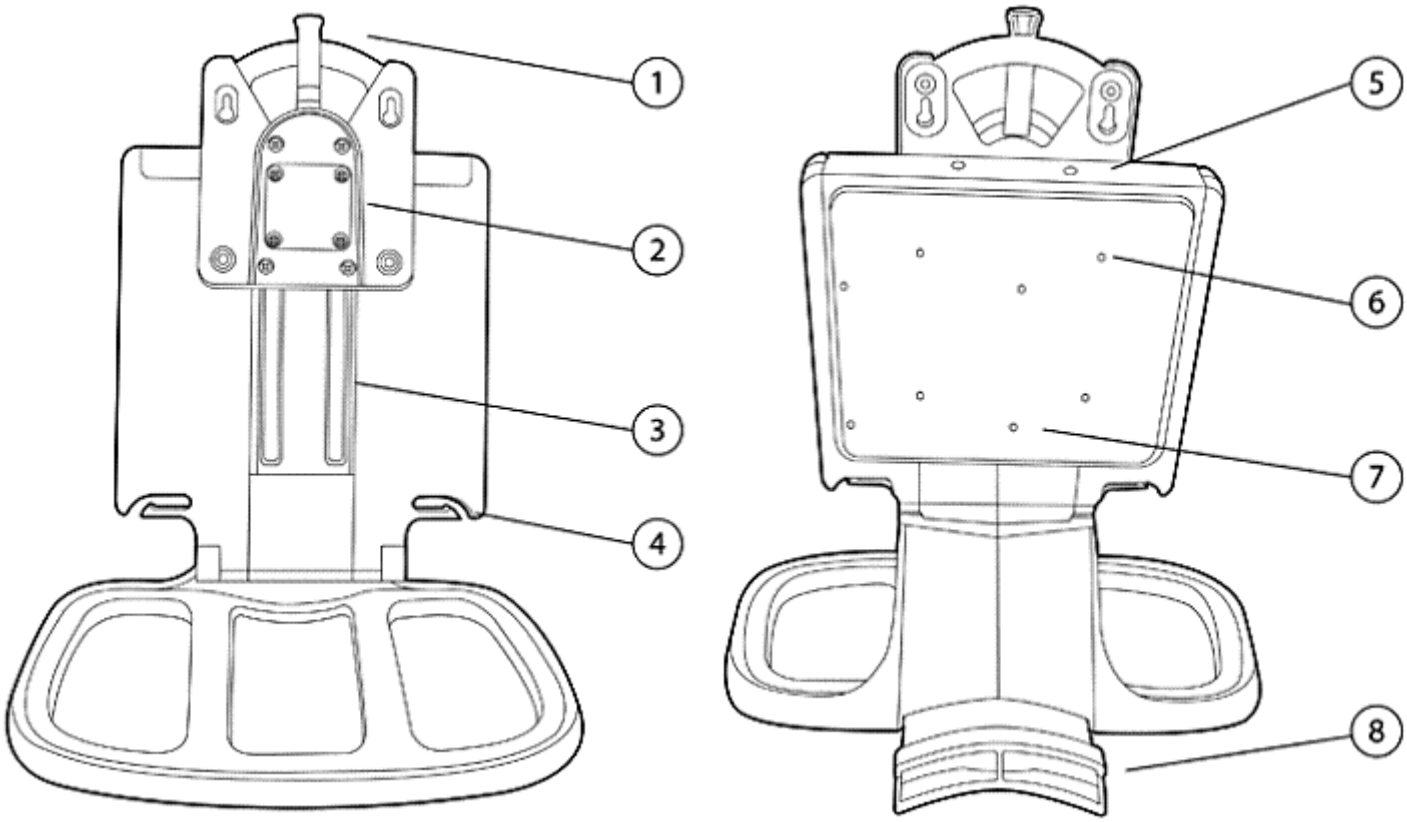
Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: www.hp.com/recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

		The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.
	Hewlett-Packard Corporate Environmental Information	For more information about HP's commitment to the environment: Global Citizenship Report www.hp.com/hpinfo/globalcitizenship/gcreport/index.html Eco-label certifications www.hp.com/hpinfo/globalcitizenship/environmentproductdesign/ecolabels.html ISO 14001 certificates: www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html
Options	HP LCD Speaker Bar—Part number: NQ576AA	Powered directly by the connected PC, the Speaker Bar seamlessly attaches to the monitor's lower bezel to bring full audio support to select HP LCD monitors. Features include dual speakers with full sound range and dual external headphone jacks. Sold separately. For more information, refer to the product's QuickSpecs.
	HP USB Graphics Adapter-Part number NL571AA	Enables connection of up to six simultaneous displays to help you boost productivity and multi-task across several open applications. Use one Adapter to bridge between a notebook or desktop PC and second monitor or use multiple Adapters to connect several displays to each other.
	HP Business PC Security Lock Kit—Part number: PV606AA	Attaches to the rear of the PC with a six-foot steel cable that can be used to secure a PC or peripherals such as mice, keyboards, monitors or USB security devices to protect them against unauthorized removal by physically connecting the system to an anchor point.
Other	Accessories Included	VGA cable –- connects the graphic card's VGA connector to the monitor's VGA input
	Software	HP Display Assistant is a software utility that allows monitor adjustment and color calibration using the Display Data Channel Command Interface (DDC/CI) protocol of the connected PC. HP Display LiteSaver allows you to schedule Sleep mode at preset times to help protect the monitor against image retention, drastically lower power consumption and energy costs, and extend the lifespan of the monitor.
	User Guide Languages	English, B. Portuguese, French, LA Spanish, Korean, S. Chinese, T. Chinese, Bahasa, Japanese, Danish, Finnish, German, Norwegian, Spanish, Swedish, Greek, Polish, Russian, Slovenian, Turkish
	Warranty Languages	English, Canadian French, LA Spanish, Brazilian Portuguese, Danish, German, Castilian Spanish, French, Italian, Dutch, Norwegian, Finnish, Swedish, Bahasa Indonesian, Korean, T. Chinese, S. Chinese
	Color	Black
	VESA External Mounting	Yes, standard 4 hole pattern, 100 mm
	Kensington Lock-Ready	Yes

Technical Specifications

Certification and Compliance	TCO 5.0 Displays, ISO 9241-307, CISPR Requirements, VCCI Approvals, KC and KCC (Korean) Requirements, CSA 60950-1, UL 60950-1, EN55022 Class B, CNS 13438 Class B, IEC 60950-1, China Energy Label (CEL), China MEPS, Korea MEPS (pending, Energy Boy), SmartWay - NA only - Energy logistics, EUP Lot 6 Tier 1 AS/NZS 3548 Class B Approval, "GS" Mark, TUV Approvals, GEEA, CE Marking, FCC Part 15 class B Approval, ENERGY STAR® qualified, EN55024 Class B, EN60950 - 1, CUL, CCIB, CCEE, IT ECO (EDS), EPEAT™ Silver
Compatibility	Compatible with platforms using the VESA standard video modes. Recommended for use with HP products.
Service and Warranty	Three years parts, labor, and on-site service. 24-hour, 90-day, toll-free technical support. Replacement options may include second business day on-site service, or next business day direct replacement, at HP's sole discretion.* With direct replacement, HP will ship a replacement display product directly to you. Using the prepaid shipping labels provided, return your failed display to HP in the same packaging as the replacement. Certain restrictions and exclusions apply. For details see your product warranty or contact HP Customer Support. * HP Care Pack Services extend service contracts beyond the standard warranties. Service starts from date of hardware purchase. To choose the right level of service for your HP product, use the HP Care Pack Services Lookup Tool at www.hp.com/go/lookuptool. Additional HP Care Pack Services information by product is available at www.hp.com/hps/carepack. Service levels and response times for HP Care Packs may vary depending on your geographic location.

HP Integrated Work Center Stand (included with LE1901wi)



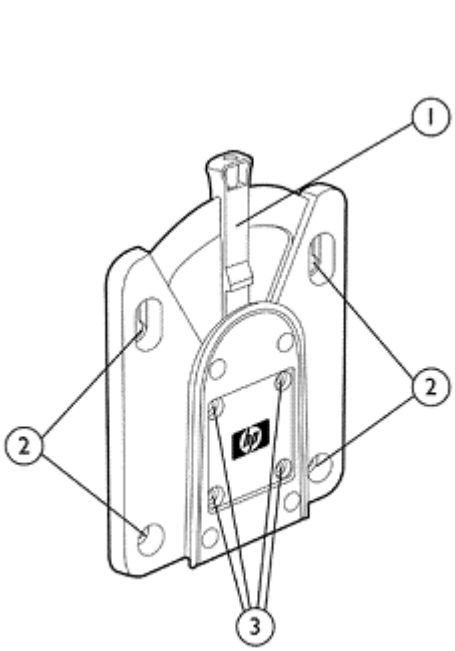
1. HP Quick Release security screw
2. Integrated HP Quick Release
3. Height-adjustable monitor mount
4. Integrated cable management slots
5. Mounting bracket security screw installation points
6. PC and thin client mounting bracket (unique four-hole pattern for thin clients
7. PC and thin client mounting bracket (unique four-hole pattern for PCs
8. Power supply support and rear cable management loops

Technical Specifications - HP Integrated Work Center Stand (included with LE1901wi)

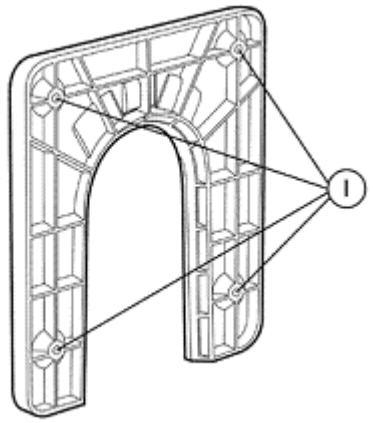
Mechanical	Tilt range	-3 to +20 degrees vertical tilt	
	Swivel range	-180° to + 180°	
	Height adjustable	Yes, range: 5.3 in (13.5 cm)	
	Pivot rotation	No	
	Dimensions (Unpackaged)	Cable management slot in:	16.5 x 14.5 x 10.25 in (41.91 x 36.83 x 26.06 cm)
		Cable management slot out:	16.5 x 14.5 x 12.25 in (41.91 x 36.83 x 31.12 cm)
	Weight	Unpackaged	6.12 lbs (2.78 kg)
Other	Accessories included	Exclusive Integrated Work Center VGA video cable, HP Compaq Ultra-slim Desktop cable cover (rear port cover), PC mounting bracket, HP Quick Release, documentation kit, and User CD	
	User guide languages	English, French, German, Spanish, Italian, Dutch, Brazilian Portuguese, Danish, Finnish, Greek, Japanese, Korean, Latin American Spanish, Norwegian, Polish, Russian, Slovenian, Turkish, Swedish, Traditional Chinese, Simplified Chinese	
	Warranty languages	English, German, French, Italian, Spanish and Japanese	
	Color	Carbonite	
	VESA external mounting	Yes (Standard 4 hole pattern, two separate 100 mm patterns on the mounting bracket)	
	Option kit contents	Integrated Work Center Stand and PC mounting bracket, Integrated Work Center VGA video cable, HP Compaq Ultra-slim Desktop cable cover (rear port cover), Quick Release bracket (to attach to back of monitor)	
Supported weight capacity	The Integrated Work Center Stand has been designed to support the weight of a 17-, 19-, or 19-inch wide format monitor only.		

Overview - HP LCD Monitor Quick Release (included in IWC stand)

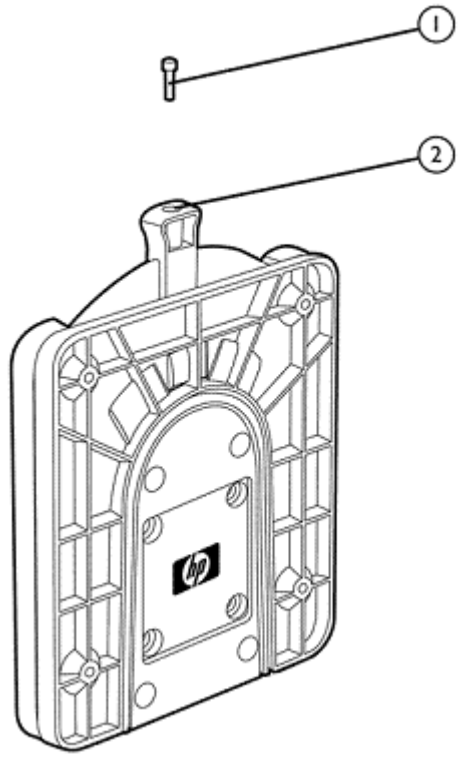
HP LCD Monitor Quick Release (included in IWC stand)



1. Release/locking
2. Four 100 mm VESA mount screw holes
3. Mounting holes for attachment to back of monitor stands



1. Four 100 mm VESA mount screw holes



1. Locking pin screw
2. Locking pin hole on release/locking arm

Technical Specifications - HP LCD Monitor Quick Release

Mechanical	Dimensions (H x W x D)	Packaged:	7.8 x 6.25 x 1.5 in (19.8 x 15.9 x 3.8 cm)
		Unpackaged:	6.3 x 5.2 x 0.65 in (16 x 13.2 x 1.65 cm)
	Weight	Packaged:	1.1 lb (0.49 kg)
		Unpackaged:	0.82 lb (0.37 kg)

Additional components

- Eight 10 mm mounting screws (for attachment to VESA compliant monitor mounts)
- Eight 15.5 mm mounting screws (for attachment to HP Compaq t5000 Thin Client products)
- Four 20 mm mounting screws (for attachment to back of select HP flat panel monitor stands)
- One Quick Release "locking" screw

Color Carbonite

NOTE: No HP monitors allow positioning of a thin client product between a monitor screen and its stand.
NOTE: The Quick Release device is not to be used between a monitor screen and its stand unless provided that way from the factory.
NOTE: Under no circumstances is the Quick Release device intended to be used in an orientation where the Release/Lock lever is oriented downward.

Supported weight capacity The HP LCD Monitor Quick Release has been designed to support a maximum of up to 24 lbs (10.9 kg) depending upon the mounting configuration used. Please note this is a total weight limit for all devices mounted, i.e. the combined weight of the monitor and a second device such as an HP Thin Client cannot exceed 24 pounds. Because mounting surfaces vary widely and the final mounting method and configuration may vary, mounting fasteners are not supplied (other than the VESA-compliant screws). HP recommends that you consult with a qualified engineering, architectural or construction professional to determine the appropriate type and quantity of mounting fasteners required for your application and to ensure that your mounting solution is properly installed to support applied loads.

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